

PRESIDENT ELIOT

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Public-School Problems.

An Address delivered before the Michigan State Teachers' Association, December, 1885. Repeated before the Connecticut State Teachers' Association. November, 1886.

B. A. HINSDALE.

From the Superintendent's Report of the Public Schools of Oleveland for the year ending August 31, 1886.

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PRESIDENT ELIOT ON PUBLIC-SCHOOL PROBLEMS.

Mr. President and Teachers of Michigan:

It gives me great pleasure to attend this annual meeting of the Michigan State Teachers' Association; the call to contribute an address to its dicussions, I can count nothing but a mark of honor. My personal acquaintance with your State is limited, but I have long been familiar with the reputation of her common schools, her State University, and her teachers. Cultivated men all over the country know full well that there is much in her educational history that is instructive and inspiring. No chapter in the admirable volume which your distinguished jurist, Judge Cooley, has contributed to "The Commonwealth Series" is likely to be read with more nterest and admiration than the one entitled, "The State provides for universal education." At least such has been my own experience. Allow me, therefore, Mr. President, to congratulate you and the Michigan teachers gathered in this annual convention, on the just fame that your State has won in the broad field of educational enterprise.

When the call to this meeting reached me, I was watching the ripples in the educational journals caused by one of the boldest and frankest educational utterances that I have read for many a day, viz.: the short address made by President Eliot, of Harvard University, at the annual dinner of the Schoolmasters' Club of Boston, at the end of October; and it occurred to me that I might render you a small service by making it the subject of my own discourse. President Eliot's abilities, position, policy, and courage of his opinions always give importance to what he says on educational matters. Perhaps I have not made the happiest selection of a theme; but you will at least remember that in the commonwealth of American education we have no tribunal as a bench of judges, to pass authoritatively on questions; no digests of opinions or reports of cases that settle causes and prevent further argument. On the contrary, causes are always open to him

who chooses to argue them. No doubt we make foolish experiments in consequence; but these are not so costly in the end as it would be to close causes to discussion, and to settle questions by referring them to registered wisdom. Moreover, the spirit of our large educational gatherings is so catholic, and the range of ability, culture, and experience represented in them so considerable, that almost any topic, even if it touches education only indirectly, is pretty sure to awaken interest.

The character of President Eliot's thinking on education, and the policy that he has pursued at Harvard, are so well understood that, in the beginning, I need only say this in general—each distinct point in his address is an outcropping of his favorite principle of election and comprehension. In discussing these points, I shall often pass beyond the limits of what he has said, to consider related questions. This is the paragraph in which President Eliot states and combats what he calls the "Calvinistic theory" of education:

"At a meeting of teachers which I attended last week, a distinguished man burst out with a completely irrelevant statement that nothing was good for training that was not hard. Now, I want to say that the view which ascribes usefulness to mental exercise only when it is repulsive and distasteful to the scholar, needing a dead-lift of the will, is to my thinking the absolute opposite of the truth with regard to mental training. No subject is good for the training of a child four years old, or twelve, or eighteen, in which the child or youth is not capable of achieving something, capable even of decided success, and of winning that enjoyment and satisfaction which come with achievement and success. If we would divide subjects into profitable and unprofitable we must, I believe, always put in the profitable class those subjects which the boy enjoys, and in the unprofitable class those subjects for which he has no capacity and in pursuit of which he gets no enjoyment. A subject is good for a child precisely in proportion to his liking for it, or in other words to his taste and capacity for it."*

In the outset we should boldly mark one capital distinction that much current writing and talking on educational and kindred topics tend to confuse, viz: Work is not play. Ingenious essayists and lecturers sometimes almost delude us into believing, at least for the moment, that they are, or may be made, the same thing. They both involve activity, work commonly more

^{*}The extracts are made from an article by President Eliot in "The Popular Educator," November, 1885. This article and the after-dinner speech were the same in substance.

than play; but they differ in the ends to which the activity is directed, and in the mental attitude of those who put it forth. Work is an act, or a series of acts, in the line of one's occupation or duty; play is resting from such acts. The synonyms of the one word are "labor," "toil," "employment;" of the other, "pleasure," "amusement," "diversion." Work is girding up the powers for serious efforts; play is their relaxation, at least their diversion from ordinary pursuits. "The end of work," says Aristotle, "is to enjoy leisure." Both work and play appear in a well-ordered life; both have disciplinary value; both are related, though in quite different ways to education; however, my present object is not to assign to each its precise sphere or nicely to determine their relations, but to emphasize the fact that neither one can be made to answer the purposes of the other.

In educating children the attempt has sometimes been made to put work in the place of play, and somtimes the attempt to put play in the place of work; and it would be hard to say which has led to the greater failure. The first attempt is the blunder of practical teachers only, the second is the blunder both of teachers and of writers on educational theory. So sober a man as John Locke not only proposed to combine instruction and sport, but said nothing like work should be laid on children; the great use and skill of a teacher in the case of small children being, he affirmed, to make all as easy as he can.*

No doubt play comes before work in the order of development; no doubt children learn a good many useful things in their sports; no doubt the kindergarten has a message for the primary teacher; but failure will in the end attend every attempt to make the school room a play room and the course of study a series of games. Even in a school where the aim is to teach only through amusements, children divide the exercises set for them into two classes, making work of some and play of others.† Moreover, if it were possible to clothe all work in the habit of play it would not answer the ends of complete discipline. John Maynard did not think it play when, in smoke and flame, he stood at his wheel

^{*} See Quick's " Educational Reformers," Cincinnati, p. 86.

^{†&}quot;The plays of children should not be systematized; they should give the individual an opportunity for the distinct development of faculty."—Radestock on "Habit in Education."

until burnt to a crisp. The sentry does not think it play as, in cold and storm, he paces his weary beat at midnight, keeping watch over the sleeping army that has been given to him in trust. The nurse, who, in hospital or home, watches alone over her feverish and delirious patient in the small hours, does not think it play. Nor, again, does the pilot, the sentry, or the nurse learn his fortitude and devotion spinning tops, flying kites, or playing lawn-tennis. To be sure tops and kites and tennis have their place, but the ability to gird up the powers of the body and the mind for supreme efforts, or even for common efforts, comes from a different regimen. It was in a thorough school that St. Paul learned to say, "For necessity is laid upon me." And we may be very certain that

"The meekest of saints will find stern work to do,"

no matter whether "the day of the Lord is at hand" or not.

It may be replied that men sometimes find their "play-spells" in severe exertion of a particular kind, as solving problems in mathematics or physics. Such declarations are often to be understood rhetorically. Still it must be said that long application to given things may produce a second nature that speaks a different voice from the first nature. Work may become a disease. Lord Chief Justice Ellenborough sat on the bench until he said the greatest pleasure of his life was to hear Follett, then a young barrister, argue a point of law. Again, great interest in a subject, and great enthusiasm in its pursuit make it attractive and pleasant. We read that "Jacob served seven years for Rachel and they seemed to him but a few days, for the love he had to her." But plain, unsophisticated common sense holds work and play antithetical. Even so devoted and resolute a lover as Jacob would have preferred to win his bride in an easier way than serving seven years as a herdsman.

Now, I do not charge President Eliot with confusing work and play. Such confusion is not necessarily involved in anything that he says; but so much such confusion exists, that a bold delineation of the two kingdoms seemed a proper prelude to taking up his real point.

The President tells us, in effect, that studies should be made interesting and easy, school pleasant and attractive. This is indeed very valuable advice. The unpleasant associations that

still cling around the words "pedagogue" and "master" are survivals of that period in educational history when it was common to make school studies exceedingly hard, school discipline exceedingly severe, and school life exceedingly forbidding. The "Calvinistic theory" was then in its glory. What is left of this regimen is now passing away so rapidly that we need to give much more attention to what is taking its place than we do to hastening its passage.

The child has a spontaneous nature that should be harnessed to studies and to the whole work of .life. Automatic attention is that state of the mind in which its energy is given to a thing from some native affinity or attraction; volitional attention, that state in which its energy is given by an act of choice. The development of volitional attention is one of the highest results of discipline. Now in training the child the spontaneous attention must be rallied to the support of the volitional, which is weak or rather does not at first exist at all; but as time goes on the volitional attention should grow and become more and more independent of the spontaneous. Humor has been likened to the lever by means of which we raise great weights with a small force. Love and enthusiam are also powerful motors. There is a large suggestion for the teacher in the fact that a little boy who complains bitterly of the weariness of walking will, when put astride of his grandfather's cane, and told that it is a horse, scamper away all forgetful of his own bitter complaints. But somewhat of life consists of walking when one is weary, and no boy is fitted for life who cannot walk. The child should indeed be led to the hard by the way of the easy, but the man has no real training or character who cannot, on due occasion, collect his powers to do a multitude of things that he considers hard and disagreeable. The spontaneous powers keep us alive in infancy, and death comes when they wholly fail us; but the highest end of education is the fullest development of the judgment, the moral sense, and the will. Hitch the spontaneous forces to your wagon by all means; but if you have no other horses, do not be surprised when you find that you drive a "balky" team.

Drawing nearer to President Eliot, it is not true that nothing is good for training which is not hard; but it is true that no training is complete which does not involve much severe and

vigorous labor. It is not true that mental exercise is useful only when it is repulsive and distasteful, needing a dead-lift of the will; but it is true that a good many such "lifts" have to be made, and the child must be got ready for them by lifting. It is true that no subject is good for the training of a child in which the child is not capable of achieving something, and of enjoying the achievement; but it is not true that a subject is always good for him in the long run, in proportion to his present capacity and liking for it. Sometimes it is the case that a child, or older pupil, who has small capacity for a subject, and finds little pleasure in its pursuit, developes, through application and study. great capacity and pleasure. After they have passed the rudiments of learning, children should not be kept long at subjects for which, under skillful teaching, they have a positive aversion; nor, on the other hand, should the choice of their studies be left to their caprices and whims. Things should not be made hard that are by nature easy. There is no reason in blocking the way to grammatical analysis with a cart-load of nomenclature; or in weighing down the solution of a simple example in mental arithmetic with a ponderous formula. There is no excuse for retaining in text-books the artificial distinctions and antiquated methods often found in them. The arithmetics, for example, should not be museums for hanging up on exhibition "applications" that have disappeared from business, if indeed they were ever known there. But there is a difference between real life and training after all. In real life it is best to accomplish results with the smallest expenditure of power, in the quickest way consistent with thoroughness; but in the nursery and the school this is not always the case. The child that can be carried quickly and easily across the room must learn to walk across it. Pupils must learn algebraic methods by first solving problems that they can more easily solve by arithmetical methods. Astronomers do not now, like Sir Isaac Newton, use the Greek geometry in making their computations; * but the mathmatical student needs

^{*} Speaking of the ancient geometry used by Newton, Dr. Whewell has said: "The ponderous instrument of synthesis, so effective in his hands, has never since been grasped by any one who could use it for such purposes; and we gaze at it with admiring curiosity, as on some gigantic implement of war which stands idle among memorials of ancient days, and makes us wonder what manner of man he was who could wield as a weapon what we can hardly lift as a burden."—Draper's "Intellectual Development of Europe." N. Y., 1896, p. 529.

the discipline and logical forms of the Greek geometry nevertheless. Moreover, we only destroy the child morally by keeping him forever shut up in a glass case; we should rather equiphim with sound principles, good habits, healthful appetites and desires, pure affections, and right purposes, and then allow him to be subjected to trial and testing. Further, trial and testing are essential to the production of that very equipment. In a word, my whole contention is, that the child must be brought, progressively of course, to measure his full powers with the labors and difficulties of life.

My reason for dwelling so long on this point is my conviction that nowhere along the long line of educational discussion is there greater need of clearer ideas. We forget sometimes that the end of teaching is not to place certain information in the mind of the pupil in the easiest way, but rather to see that it is retained and assimilated, and that the mind and character are strengthened by the process. Partly in this forgetfulness, and partly in our haste to hurry children along, lies the explanation of some of the characteristic features of our schools. Books are not taken away from children, but they are not given the chance that they need to study them; while teachers, with their "new educations," "natural methods," and "oral instruction," fill the children up with knowledge and at the same time destroy mental character. Perhaps I should remark that this is true only in a relative sense. It it quite generally asserted by high-school teachers who have had a lengthened experience, for example, that their pupils are not the independent workers that they were fifteen or twenty years ago. An old lady familiarly called "grandma" was a patient in a hospital for the insane over which a friend of mine presided as superintendent. She resolutely refused to swallow food, and for two whole years fed herself only once in the natural way. She would place the feeding pipe in her throat, and hold the bowl of milk or broth in her hands, while the attendant threw the liquid into her stomach with a pump. One day the doctor said, "Grandma, don't you think it would be better if you would eat this food yourself?" "Oh, no," she answered, "this is so much easier"! With all his mistakes in educational matters, John Stuart Mill certainly understood the great educational transition of his times when he wrote:

"I do not believe that boys can be induced to apply themselves with vigor, and, what is so much more difficult, perseverance, to dry and irksome studies by the sole force of persuasion and soft words. Much must be done, and much must be learned, by children, for which rigid discipline and known liability to punishment are indispensable as means. It is, no doubt, a very laudable effort in modern teaching, to render as much as possible of what the young are required to learn, easy and interesting to them. But when this principle is pushed to the length of not requiring them to learn anything but what has been made easy and interesting, one of the chief objects of education is sacrificed. I rejoice in the decline of the old brutal and tyrannical system of teaching, which, however, did succeed in enforcing habits of application; but the new, as it seems to me, is training up a race of men who will be incapable of doing anything which is disagreeable to them."

Mr. Mill even said: "A pupil from whom nothing is ever demanded which he cannot do, never does all he can."

This is President Eliot's second paragraph:

"This idea I know, if carried out thoroughly, runs directly counter to another very common idea—namely, that there is a considerable number of subjects which everybody ought to know. Now, the longer I live, the greater experience and wider observation I have, the more I settle to the conviction that there is no one thing that a liberally educated man must know. In arithmetic, for example, what stumbling blocks to children are least common multiple and greatest common divisor; but we have all discovered that common people have no use for either of these matters. And so on throughout much of school education. It is not at all necessary for everybody to know what air is made of, where the River Charles rises, how the pump draws water, or the names of the stars, or of any of the kings of Egypt. Not one of these things is in the slightest degree essential to a liberal education. Hence the notion that there is a certain number of subjects which everybody should know, ought never to be allowed to interfere with or counteract the general principle that the best training for every individual lies in the pursuit of those subjects for which he is best fit and which he enjoys."

Unfortunately this language is not as clear as could be desired. In one sentence the President denies "that there is a considerable number of subjects which everybody ought to know," thereby apparently admitting by implication that there are some such subjects; and in the next sentence he affirms "that there is no one thing that a liberally educated man must know." The denial and the admission can be harmonized only by holding that

^{* &}quot;Autobiography," New York, 1863, p. 53.

the term "thing" applies to a single fact or object, and is not the same as a "subject" or branch of knowledge. But we are cut off from making this distinction by the last sentence, where what has been affirmed of "thing" is affirmed of "subject." Apparently, then, the President of Harvard desires us to understand him in the most absolute sense; there is no one thing or subject which a liberally educated man need know. This a surrender of reading, writing, and arithmetic, unless, indeed, we are to suppose that these are instruments or methods for learning things and subjects, and not such themselves, which seems a forced construction.

One's view of the whole paragraph will depend somewhat upon the sense that he attaches to the expression "a liberally educated man," a topic that I set aside for the present. No one can fairly claim that such a man must know the elements of the air, the source of the Charles river, the action of a pump, the names of the stars, or the names of the kings of Egypt. But the real question is this: What is a liberally educated man's relation to the great departments of knowledge to which these facts belong —to chemistry, geography, physics, astronomy, and history? Admit for sake of argument, "that the best training for every individual lies in the pursuit of those subjects for which he is best fitted," provided we can only find that out; but since it is a fact that special talents do not ordinarily declare themselves at the age of ten or twelve, how are we going to make that discovery? The boy of those ages is quite apt to have a stock of whims and notions of his own; moreover, what he enjoys depends largely upon association and habit; and we cannot relegate his studies to the court of notion and enjoyment.

But let us hear the President again:

"There is another principle which we should bear in mind, though it runs counter to generally accepted ideas, viz: That uniformity in intellectual training is never to be regarded as an advantage, but as an evil from which we cannot completely escape. We have lately heard a great deal about 'keeping step' as a valuable part of public-school training; but I do not know a more unfortunate figure to use with regard to education. Even in military movements, if troops want to get anywhere, they never keep step. A large school is almost necessarily a kind of averaging machine. But we should always bear in mind that though this averaging may be in some measure necessary, it is a necessary evil. All should admit that it would be an ineffable loss to mankind if the few great men

were averaged with the millions of common people,—if by the averaging process the world had lost such men as Faraday and Agassiz, Hamilton and Webster, Gladstone and Cavour. But do we equally well understand that when ten bright, promising children are averaged with ninety slow, inert, ordinary children, a very serious loss is inflicted, not only upon those ten, but upon the community in which the one hundred children are to grow up? There is a serious and probably an irreparable loss caused by the averaging of the ten with the ninety children. Therefore I say that uniformity in education all along the line is an evil which we should always be endeavoring to counteract by picking out the brighter and better children, and helping them on by every means in our power."

No other paragraph in the address is so exasperating to public-school teachers as this one, and no other is so deserving of their attention. Putting aside our resentment at being talked at in this manner, we should candidly inquire what there is in this matter of uniformity and averaging.

In a sense a large public school is "a kind of averaging machine." But the world is full of such machines, and we need not be over-afraid of them. A national literature, no matter how rich and varied, is an averaging machine. It tends to produce a certain mental homogeneity, a certain type of culture that is more or less distinct from all other cultures. The Anglo-American is not reared on the literature of Italy or Persia, and would not be Anglo-American if he were. The Christian church, in the broadest historical sense, is an averaging machine; and so, in a much closer sense, are the state churches of Europe and the Christian denominations of America. One does not need to be a theologian to trace the line of delimitation separating the Christian church from all other churches, as the Jewish, the Mahommedan, or the Buddhist. The Christian denominations rest upon certain doctrinal uniformities and certain spiritual cultures, which uniformities and cultures they tend powerfully to perpetuate. Non-conformity is the loose-fitting name of a multitude of British sects: but it nevertheless marks off some very definite beliefs or non-beliefs which those sects hold in common. Colleges and universities are averaging machines; their function being to provide society with liberally educated men, who, even when the name is held in a sense loose enough to please President Eliot, have something in common. Republican government and absolute monarchy are averaging machines, each tending to produce its own type of citizen or subject. Nay, civil

society itself, the very civilization of which we boast, is an averaging machine; it is plainly divided from barbarous or savage society, and tends to certain uniform results. Certainly in this broad sense, large public schools, and small public schools, and schools of all kinds are averaging machines. Moreover, they should be such machines. The name may offend us but its suggestion of mechanical rather than vital or organic processes, but we need not hesitate to admit the fact. Hence if President Eliot speaks absolutely when he says that uniformity in intellectual training is never an advantage, and that averaging is a necessary evil, I cannot agree with him; but probably he does not speak in that way. So far, then, there is no room for a quarrel.

But this is neither the kind of "averaging" nor the kind of "uniformity" that President Eliot means. He has in his mind a process that ignores the individuality of children, kills originality, rounding off the sharp knobs of genius and character, and thereby accomplishes two things-turning out a type of tamely uniform men and women, and losing to the world its Faradays and Agassizes, its Hamiltons and Websters, its Gladstones and Cavours. I do not share the fear that there is great danger of the potential great men of the future being spoiled in this way, but there is such a thing as over-averaging. Mr. Bagehot said civilization consists of two elements, custom and change, legality and progress. "Law, rigid, definite, concise law is the primary want of early mankind." This is the "cake of custom," or "the preservative habit," with which civil society everywhere begins. Then comes progress and variety; "getting out of a fixed law," "breaking the cake of custom," "breaking through the preservative habit, and reaching something better." Both theory and history prove that the second of these steps is much the more difficult of the two. full of arrested civilizations. Witness China that once had a promising civilization, but that for thousands of years has stood still, wholly unable to break the tough cake of custom that antiquity baked. The averaging machine has there done its per-We talk of the "average American," having in mind a certain vague type of man, and not venturing to point out as such any individual in the throng who jostle us on the

street; but in Pekin, if I understand the matter rightly, you can safely point to almost any passer-by with, "That is the average Chinaman."

Once more, there may be and there may not be a suggestion in the fact that the Chinese averaging machine is in the hands of the schoolmaster; in no other country in the world have the teacher, the school, and literary studies been so powerful in molding the national character and life.

It is this excess of uniformity—this over-averaging—that President Eliot complains of, and that we all need to watch with fear and trembling. There is a certain danger of its appearance in schools of all kinds; other things being equal, more danger in large schools than in small ones, and in systems of schools than in single schools. Many teachers do over-emphasize—and the majority of teachers are more or less likely to over-emphasize—"keeping step." To compare the public schools with other schools might be thought invidious, and to speak in quantitative terms of any school is impossible; but I am free to say, for one, that President Eliot has in his remarks on "averaging" pointed out one place where public-school men need to keep the danger signal all the time flying.

Men offer to our observation a great variety of talents and tastes. In his late address at Johns Hopkins University, Archdeacon Farrar said:

"The minds of men differ radically. Some men, like my friend the late Dean Stanley, are interested in the nature and thought of men; others breathe most freely in regions of the abstract. Charles Darwin said that at school he had learned nothing with the exception of that which he had taught himself by private experiments in chemistry, and when the head master discovered him, instead of encouraging him, he reproached him before all the form with being a poeco currente, which he thought a dreadful name. St. Bernard is so dead to outer impressions that he travels all day along Lake Geneva and then asks where the lake is, while Linnæus is so sensitive to the beauties of nature that when he beholds a promontory standing boldly forth and teeming with beauty, he cannot help falling upon his knees and thanking God for such a world."

What educational problems do these examples suggest! But every man of much reading can readily parallel them, even if he cannot state them in as choice language. Sir Walter Scott took no interest in the regular school studies, and was voted a dunce by the masters; but he had a passion for the antiquities,

history, and minstrelsy of Scotland, and finally became the great chivalric poet and historical romancer of the century. A much commoner case is such as this: A boy who does nothing in school but make trouble, has a taste for drawing and mechanical contrivance; he spends the time that the teacher wants him to bestow on geography and grammar in making pictures and toy machinery, and at last blossoms out, to the surprise of everybody, an architect or inventor.

But the variety of character is greater than the variety of intellect. The sensibility and the will present to the educator more, and more difficult, problems than the understanding. Children's minds have been compared to combination locks; if you have the "combination" you can enter at once; it you have not no pounding on the door will give you entrance. Sometimes the combination is simple and easy, and then again complex and difficult.

Now our problem is to adapt the schools to this variety of mind and nature. Averaging of some sort begins at once. One hard thing to manage is the course of study; the work assigned in the grades must not be measured by the ability of the brightest nor again of the dullest scholars. The problem confronts us again in the examinations and promotions. Then the teacher question brings it up in a still more trying form. Some teachers can rise and fall through two or three octaves, some through one octave, some are coufined to a single note. In government and moral control it is even worse, since the average teacher has less power to discipline than she has to instruct. One teacher reports a pupil stubborn, another says he is quite manageable. One teacher soothes the boy who is bristling like the fretful porcupine, another ruffles him and makes him more fretful. In some schools you will always find more or less irritation and friction; troublesome boys who pass into other schools disappear from sight like icebergs drifting towards the torrid zone. We have difficulty in accounting for these differences in teachers. Even the most skillful analysts of character fail us. They mention "good sense," "sympathy," and several other common qualities, and then pass off into vagueness-"native tact," "subtle influence," and "indefinible quality." Most unfortunately, where the teacher should be fullest of resources, the most vicious averaging is done. Again, woman are more skillful than men in

finding the mind and heart combinations of small children, and this is why they make the best primary teachers.

I am familiar with the manner in which the regulation schoolmaster puts aside such examples as those just presented. He says they are "exceptional," and declares, what is true enough, that, as a rule, the boys and girls who do well in school do well in other places; but the question arises whether the child that cannot go at the common pace but has a pace of his own—the boy who is separate and apart, and is therefore called "queer," or "odd," or "strange," receives the attention that is his due. Should such a boy as Walter Scott or Charles Darwin or Humphrey Davy appear in the schools of Detroit, Chicago, or Cleveland, would he find any room, or would he be driven out by the established regimen? I shall not answer my own question, but will say that sometimes it seems to me we have in the schools a case of "arrested development." The graded school movement has done great things for education; it has brought system and order out of chaos; it has created custom and legality, but the question of individual adaptation and progress has not been fully solved. The "cake of custom" has been baked, but not fully "broken." This is my excuse for offering some remarks on this point of a more definitely practical character.

1. President Eliot does not exaggerate the value to the world of its great men; nor is his solicitude for the ten brightest children in a hundred misplaced. He was right when he wrote in an Atlantic Monthly essay ten years ago—

"We Americans are so used to weighing multitudes and being ruled by majorities that we are apt to underrate the potential influence of individuals. Yet we know that Agassiz's word about a fossil fish justly outweighed the opinion of the whole human race besides; that Von Moltke is worth great armies to Germany; that a few pages of poetry about slavery and freedom by Longfellow, Lowell, and Whittier, have had the profoundest effect upon the public fortunes of this country during the past thirty years; that the religions of the world have not been the combined work of multitudes, but have been accepted from individuals. We must not be led by our averages and our majorities to forget that one life may be more precious than other millions; that one heroic character, one splendid genius, may well be worth more to humanity than multitudes of common men."

But it does not seem possible to make very full provision for the highest abilities in schools of any kind. The fact is, the men who have them move in an orbit, and with an impetus of their own. In discussing the scale of merit among men who obtain mathematical honors at Cambridge University, Mr. Galton speaks of the enormous differences of power that the examinations reveal. One year the senior wrangler obtained 9,422 marks, the man who stood at the bottom of the same honor list only 309. Galton states the ratio of abilities as 30 or 32 to one. That is, the senior wranglers are able to grapple with subjects thirty or thirty-two times as difficult as the men who come in lowest on the lists. And yet he insists that in the examinations, the best men do not have a fair chance, owing to the large amount of time that is taken up in the mechanical labor of writing.*

Now how are these extraordinary men to be educated? I can see but one possible answer,—they must, for the most part, get what they need in extra school work. What they need is great teachers who can guide them in their studies. This is what Dr. Brunnow did for Watson at Ann Arbor. It is not practicable to bring the brightest pupils in a public school grade together in classes by themselves: the different classes of pupils within the grade, must for the time, work on together; but when we succeed in gearing the public library to the public school, the best pupils can pour their surplus power into literature. It may be replied that the best pupils are apt to be the nervous and precoscious ones, who should not be crowded, which is true in a measure; but there are other pupils of superior ability and strength who can do more than the allotted measure of work.

2. A good teacher can do a great deal of this differential work within the school. Here I fear teachers do not always understand their business. At the beginning of a term a class is graded, and the teacher perhaps thinks that she should keep it graded. Not at all; it is her duty to ungrade the school as quickly and thoroughly as possible. "Even classes" may be very easy to handle, but they indicate only average teaching. English fox-hunters think it a great merit in a pack of hounds to run in so close a body that a bed blanket will cover them, but teachers should not think their schools "packs." By "ungrading" the school I do not mean that the bright children are always to be promoted out of the class, though that is sometimes best;

^{*&}quot;Hereditary Genius," N. Y., 1870, p. 20.

I rather mean that extra work may be furnished in school or out of school to those who are able and anxious to do it. This would, in reality, be putting two or three courses in the one course: *imperia in imperio*.

To provide elective studies in lower grade schools is impracticable. The studies of those grades are fundamental in character as well as in name, and the children, with the exceptions soon to be made, must be held to them. But you will often find boys who have no taste and no ability for grammar, for example, but are good readers, good arithmaticians, good geographers, and are full of general information into the bargain. To refuse promotion to such a boy, particularly if his stay in school will be short, is an injustice. The same it true of the girl who succeeds in everything but arithmetic. But I shall be told that there are indolent pupils, and pupils who have dislikes for particular studies, and that these will also ask for promotion when This difficulty is not an imaginary one; but I reply, they fail. that I would promote none on this score who have not also been successful in nearly all the studies. Moreover, the refusal to do justice to one class of pupils because another and a different class will make trouble, while it must sometimes be done, perhaps, is most emphatically a vicious averaging process. Again, there are pupils who never master the work of any grade beyond the fourth or fifth; they absorb "so much" of a subject and never absorb any more; and, when the point of saturation is reached, they should be moved along. Of course such pupils cannot be carried through the schools and graduated; fortunately for the management, however, they generally disappear before graduation day comes. Perhaps I shall be asked, "How much would you yield at these various points?" That question cannot be answered in quantitative terms. What I mean is, I would individualize the cases and deal with them as they arise.

But one side of uniformity and averaging President Eliot did not touch upon. It was left to Prof. Harris, of Andover, to discuss at that now famous dinner the subject of "order." He is reported as having said: "Order is not heaven's first law; order is the law of a small mind—of an imitative, mechanical mind. Order, as a law, reminds one of a Dutch garden, of rooms in a hotel with furniture arranged exactly alike. There is a

vast distance between order and disorder where variety may appear." We need not weigh these words one by one, or as a whole, but it is desirable to think the important subject of order out to the end.

The common saying that order is not an end but a means is perfectly true. The same may be said of education itself, though in a different sense. Order is proximate to education, education to life. A certain kind and amount of order is essential to intellectual education: there must be attention and application to the objects of study. Migratory tribes never become highly civilized; bodies of men must, as a whole, become fixed and permanent before they can really enter on the march of mental and moral progress. A similar condition attends the education of the individual pupil. Then order has an important moral bearing. Regularity, punctuality, industry, and obedience, all requiring much self-control, are prominent features of public schools as now organized and conducted; how important they are as moral virtues, no reading and thinking man has an excuse for not understanding, since Dr.W. T. Harris gave them this rank and dignity, first in one of his St. Louis reports, and afterwards in a paper read to the National Council of Education, in 1883. And this is one side of the case as fully as I need to present it; now for the per contra.

Nothing in school management is easier than to overdo "order." Particularly is this true in the cases of small children of American ancestry, with a tendency to nervousness. Every man of sense and observation will admit this the moment he reflects on their restless manner, their animal spirits, and their small power of physical self-control. Such children must have frequent physical exercises while the school hours are passing; also a good deal of liberty when engaged in work at their seats. They cannot be "trussed" like so many chickens. Such tests of school excellence as "you can hear a pin fall," or "a watch tick," are most unnatural, absurd, and tyrannical; human nature rebels against such repression. Reasonable order in the school-room must, for the most part, be secured indirectly; it must come as the result of keen interest in, and close application to, the work. What is sometimes called "good order" does not always imply either interest in studies or a good school, since it may be secured by extreme repression; but interest and application are pretty certain to lead to good order. In other words, order should be largely spontaneous; in the long run, that teacher will best succeed in securing it who says little about it. Even grown persons who are consciously trying "to keep still" find it difficult to do so. How hard many find it to sit for a photograph! The boy whose business is to "be quiet" is very certain to make a great deal of noise while about it. Moreover, a positive direction or order to "keep still," given to any assemblage, is likely to provoke nervous and muscular movements. Great audiences are as "still as death," not when the orator is descanting on order and stillness, but when he loses them and himself in his subject. Hence attempts to secure order should not be thrust too much into the faces of children. Wendell Phillips tells an anecdote of a judge who said to the crier of the court, "Mr. Crier, you are the noisiest man in court, with your everlasting shout of 'silence!" So it is in some schools; the teacher with her sharp cries, "attention!" "position!" causes, directly and indirectly more nervousness and confusion than all the school put together. I have heard children say, "I cannot keep still in that school." But while the order of the school should be mostly spontaneous. and therefore unconscious, I know full well that often the teacher must take a pupil, and even a school, "in hand," and bring about the desired result by direct means.

But there is another view of the subject, second to no other in importance. A good teacher must possess two great qualities—the power to govern or manage, and the power to instruct and develop the child. That the second of these is the greater power is as clear as that the first is often more highly valued. Unfortunately, there are teachers of good abilities, excellent character, fine education, "apt to teach," and of admirable influence on mind and heart, who are not gifted—some are even weak—as managers. In time they may establish their influence in the school, but they cannot walk into the room and command order with a nod or a wave of the hand. Still more unfortunately, there are other teachers who have large power to manage, but are very poor and weak in intellectual and moral qualities. These teachers, often coarse and ruling by mere animal dominancy, can "nod" and "wave" children into enforced subjection,

but they succeed indifferently in the great ends for which the school exists. I am fully aware that a certain amount of control is essential to good instruction, and that a teacher who cannot govern, no matter how admirable a person she may be, is a failure; but it has often seemed to me unfortunate that, nine times in ten, the visitor or superintendent, on visiting a school, especially if the teacher be a new one, is first struck by the order and afterwards by the instruction. Then five or ten minutes often suffices the experienced observer to tell whether a school is managed or not, while repeated visits, some of them protracted ones, are necessary to ascertain what is the character of the instruction along all the lines of school work. Particularly is this true in the upper grades, where the work is widely differentiated. These theoretical views, together with some observation, lead me to two conclusions which, however, at root are but one: that the superintendent, the school board, and even the whole community, are pretty certain to over-value the managing teacher as compared with the developing teacher; and that in our public schools generally too much attention is given to order as compared with instruction. And still a teacher must govern to a degree or she cannot develop.

This group of topics which has detained us so long, may be dismissed with these additional remarks: That the public school system of a large city, with its grades, courses of study, teachers, supervisors, etc., is necessarily complicated, and more or less machine-like; that it may easily be made a deadening, repressive, and oppressive machine; and that educational bigots and sciolists will be sure to prostitute it to these ends. No other schools call for more intelligent teachers and supervision. was once said of a great national church that abounded in mechanical elements: "When once this vast organization, with its minuteness of ritual, ceased to be constantly vivified by the breath of prophecy often passing over it, like a divine whirlwind, to shake its entire fabric, its tendency was to petrify into immobility." Something like this will happen to the public schools almost the very hour that they cease to feel the vivifying breath of public discussion.

Except a few sentences on the history of the educational profession, President Eliot devotes the remainder of his address to

the problem of moral education. So far as I have observed, his views on this subject have attracted more attention, and called out severer condemnation, than on any other subject that he handled at the Boston dinner. The paragraph is a lengthy one, but it will relieve the tedium of my own discourse.

"Another point I wish to mention is that we shall never get what we need from our educational institutions if we try to put them on a purely secular basis. It seems to me that during the last twenty-five or thirty years there has been a relative decline in the Intellectual and spiritual part of our National life. The material is getting too strong a hold of us. Of this decline one evidence may be seen in the very slow growth of our higher institutions of learning—a growth which by no means keeps pace with the increase of our population. The very best outcome of school life is a taste for serious and earnest reading, which will nourish in a boy, as he grows up, his intellectual life. He need not be reading mathematics and theology; he may read history, fiction, travels, biography, or even politics. But that taste for reading, whatever its kind may be, must be implanted at school; and this object should be persistently kept in view from the primary school up. It should be almost the supreme object of the teacher's efforts. And yet there is another vital work to be done at school—the cultivation of the love for beauty, goodness, and truth, and of the sense of duty and honor. Some say this can be done without the aid of religion. It never has been. How to combine a true religious and moral training with our present secular education, is the great question of to-day. This problem had not arisen here sixty or seventy years ago; for then our people were homogeneous. To-day they are heterogeneous. Germany, Austria, France, Belgium, and other countries of heterogeneous population have solved this problem by combining various religious instructions with the public secular education; the religious teachers belonging to different denominations are admitted to the public schools at fixed times, and government appoints and pays the religious as it does the secular teachers. That is the only way out of the difficulty, and it is accordance with the general policy of the American Governments, National and State, towards American churches. To-day I see growing up about us parochial schools—that is, RomanCatholic schools -which take large numbers of children out of the public schools. That is a great misfortune; and the remedy surely is to admit Catholic instructors to teach Catholic children in the public schools. The priest, the minister, and the rabbi should all be employed to teach the children of their respective communions in the public school at the same hour, and each should be paid for his service from the public treasury. All those who are strongly interested in the successful maintenance of our public school system will. I believe, eventually urge the adoption of the method I have described for providing moral and religious education at the public charge."

President Eliot here asserts, in effect, that the American people have less interest, relatively, in literature, science, philosophy, art, and religion,—that is in "the cultivation of the love for beauty, goodness, and truth, and of the sense of duty and honor" than they had a generation ago; and that they are more absorbed in creature comforts and material well-being. Whether true or not, a multitude of facts can be brought forward to support this discouraging view. The worship of money appears to grow more and more; the voice that cries for "practical education" in the mean and narrow sense becomes louder and louder every year; and we seem in danger of forgetting that there is a life of art and sentiment, of beauty and reverence, within the life of money-earning and money-spending, which must be fed. The life is more than meat and the body than raiment. What Mathew Arnold calls "the remnant" must therefore content earnestly for sweetness and light, remembering the counsel of Goethe: "Men are so inclined to content themselves with what is common—the spirit and the senses so easily grow dead to the impressions of the beautiful and perfect—that every one should study to nourish in his mind the faculty of feeling the best things by every method in his power. For no man can bear to be entirely deprived of such enjoyments; it is only because they are not used to taste of what is excellent that so many people take delight in silly and insipid things, provided they are new. For this reason one ought every day at least to hear a pleasant song, read a good poem, see a fine picture, and, if it be possible, speak a few reasonable words."

But the President makes a novel prescription for our ills when he recommends that the priest, the minister, and the rabbi shall be sent into the schools to teach the children morals and religion. In New England at the beginning of the century, when society was homogeneous, and the priest and the rabbi were almost unknown, the minister could do, and did do, with what results does not for the moment concern us, this very thing. It is also done in some Continental countries to-day, no matter whether wisely or unwisely. But in the United States the scheme is so chimerical that to propose it argues a failure to grasp the conditions under which public schools exist. First, such a programme could not be adopted without the united support of re-

ligious men and organizations. Secondly, it could be carried only against the united and bitter opposition of the materialists and secularists who are so numerous and strong in the cities. Thirdly, the practical attempt to work the programme would make no end of strife and confusion both in the schools and in society. Moreover, back of all these difficulties lies the question whether this scheme contemplates the right moral ideal. However that may be, we shall not, I imagine, again see the catechism in the school, and must try and solve the moral problem in some other way.

It will be seen that President Eliot's prescription for the public schools is the bold proposition to carry into them his Harvard policy of eclecticism and comprehension. Having discussed his several points, one by one, I wish now to offer a few remarks on the underlying principle.

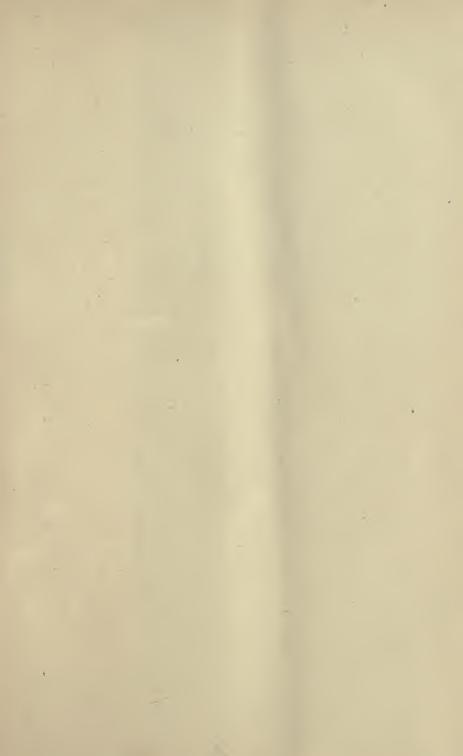
It is manifest to the dullest that liberal education in this country is undergoing a transition. Scholars of former times drew a sharp line between liberal education and professional or special education; the tendency now is to obscure this line. Again, scholars formerly held that liberal education came from the pursuit of certain liberal studies or arts. When a boy went to college everybody knew as well what "the liberal arts" were as that the boy went to pursue them. He studied the classical languages and mathematics mainly, but gave some attention also to philosophy, science, and rhetoric. In those days the Republic of Letters could be easily bounded, what constituted its citizenship readily told. What is more, the Republic originally embraced all the general studies, and so was liberal in a very literal sense. But knowledge grew, and in time spread far beyond the old boundaries. Now came on a struggle between those who loved the old Republic and those who loved the new learning; the question at issue being the extension of the citizenship. In this struggle those who stood for tradition have had the worst of it; change has followed change until at Ann Arbor several courses of study, which begin to separate at the sophomore year. lead up to the first degree in arts, and at Harvard all studies are elective after the first year, and the president contends for election from the very first. Some colleges have made more changes, some fewer, but all have made many; and the time has

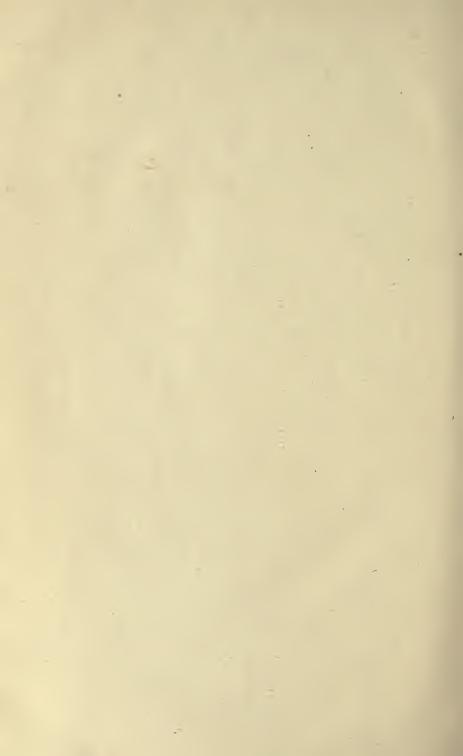
at length arrived when to say a boy is at college conveys no definite idea of what he is studying. This change has been watched by those who stand for "the old studies" with much the same feeling that conservative Romans watched the extension of the Roman citizenship until it embraced the whole Roman world. Hence arise the questions: Shall we go further in the same direction? Will change follow change until the designation "liberally educated" shall mean no more than that a man or woman has devoted several years to the successful cultivation of studies?* Are the liberally educated men of the future to have only the name in common? In a word, is the Republic of Letters to give place to the Empire of Knowledge? These questions are thrown out for suggestion, and not for answer. My own faith is conservative-liberal. While I never had any patience with that bigotry which denies the name of scholar to a man because he has not followed certain educational rubrics, and while I think nearly all of the recent changes are in the line of progress, I am not convinced that elective courses in college should spring from matriculation day and diverge more and more to graduation. Denying as I do that the average freshman is the fittest person to choose his own studies, I deny still more stoutly that the elective principle should be, or can be, carried through the public schools. Undoubtedly considerable scope may be given to election in the high school; but there is no place for it in primary and grammar schools, beyond the small one that I indicated in discussing uniformity and averages. All the pupils should learn to read, spell, write, and should acquire something of geography, arithmetic, and of their own language; and this is substantially all that we accomplish in the primary and grammar grades. Education is simple and homogeneous in its earlier stages; and no matter what pursuits or professions boys and girls follow in later life, they all need the rudiments of learning as a preparation.

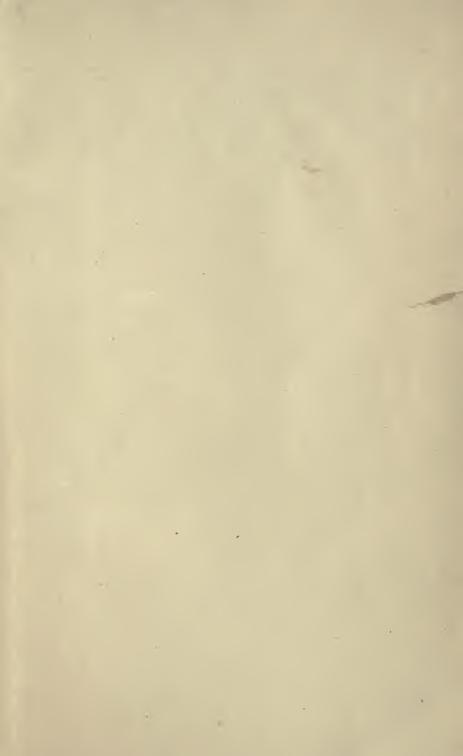
^{*}The Nation, No.1079, discussing President Eliot's last Report, published since this address was written, says: "He concludes, in answer to a question often asked, by stating that the degree of Bachelor of Arts means at Harvard 'that all Bachelors of Arts have spent from seven to ten years, somewhere between the ages of twelve and twenty-three, in liberal studies.' It should be added that President Eliot does not regard the present system as a finality, but as infinitely perfectible, holding fast to the fundamental law of freedom."

One thing more, Mr. President, and I am done. More than anything else in the world, education is a matter of men and women. No matter what important school question we raise, it soon passes into the concrete. Courses of study and methods of instruction lead quickly up to the question, "Who are to do the teaching and supervising?" All contemplated reforms resolve themselves into the teacher-question. Like other instruments of vast power, the public-school system may be greatly abused; and whether it is or not will depend, in the first place, mainly on the intelligence, education, and devotion of teachers and supervisors. To aid in solving this problem, such associations as yours exist, and such meetings as the present one are held. I can leave with you no larger hope than this, that in your efforts to solve the problem you may meet your fullest expectations.









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